MCAC-2008-15

2008 Midea Commercial Air Conditioners

Control System & Selection Software

Climate Solution for Green Environment

GD Midea Commercial Air-conditioning Equipment Co., Ltd.

Address: Midea Industrial City, Shunde, Foshan, Guangdong, 528311, P.R.China

Tel: +86-757-26339642

Fax: +86-757-26339337

Web Site: http://www.mideacac.com

E-mail: mcac@midea.com.cn

Note: The data in this book may be changed without notice for further improvement on quality and performance.

2008
Midea Commercial A/C

Controllers

MDV Central Control Monitor		CCM01 Indoor CCM
		CCM02 Outdoor CCM
		CCM03 Indoor CCM
		MDV-WLJKXT(V3.0) 3rd Network Central Control System
		MDV-WLJKXT 2nd Network Central Control System
		CCM07 LonWorks Gateway
		CCM08 BMS CCM
BMS Accessories		NIM01 Network Interface Module
		NIM02 Network Electric-charge Module
		NIM05 Hotel Inserting Card Module
		NIM06 Outdoor Units Electric-charge Module
		DTS634 Digital Ammeter
Heat Pump Water Heater Controller		KJR-13B Heat Pump Water Heater Wired Controller
		KJR-16B Heat Pump Water Heater Wired Controller
		CCM06 Heat Pump Water Heater Central Control Cabinet

MDV Controllers		KJR-01B(WD) Rooftop Package Unit Wired Controller
		KJR-10B Wired Controller
		KJR-12B Wired Controller (with FOLLOW ME)
		CCM04 Weekly Timer
Thermosta		-14B densing Unit Thermostat New Rooftop Package mostat
		-15B Floor-standing Fan Coil Thermostat
Chiller Controller		KJR-07B Fan Coil CCM
		KJR-08B Air-cooled Chiller Wired Controller
		KJR-11B Water source Heat Pump Unit Wired Controller
Wireless Remote Controller		R05/BGE Wireless Remote Controller
		R51/E Wireless Remote Controller
Other Modules		(MDV)DWZL.D.1 Low Temp. Cooling Module
		AUTORESTART Auto-restart Module

Control System

Coming soon...
BMS CCM
Midea
NEW
Can be used as indoor CCM, control Max. indoor-units 4×64 or outdoor units 4×32.
It has BACNET port, LONWORKS port, ETHERNET control module to meet customers' demand.
Can save data within one month.
Can be connected to Midea-BMS via ETHERNET.

Selection Software

Windows Version

CAD Version

Controllers

Universal Remote Controllers

R05/BGE Wireless Remote Controller

High-grade remote controller, light background, LCD display screen, clock function, ON/OFF/Temp. setting /Mode setting /Fan speed setting/Horizontal swing/Vertical swing setting functions.

R51/E Wireless Remote Controller

On base of common remote controller. LCD display screen, clock function, ON/OFF/Temp. setting/Mode setting/Fan speed setting, etc.

Chiller Controllers

KJR-07B Fan Coil CCM

Suitable for FCU and split mini chiller units. It can query and control the units not only master unit but also slave unit.

KJR-08B Air-cooled Chiller Wired Controller

Suitable for air-cooled chiller system, control function as ON/OFF/Mode select / Temp. setting / Query.

KJR-11B Water Source Heat Pump Unit Wired Controller

Outdoor units central control, 64 outdoor units can be controlled synchronously. And it can control 4096 outdoor units by central wired. Control function as Water pump/Aux heating/Cooling tower/Fan motor.

Heat Pump Water Heater Controllers

KJR-13B Heat Pump Water Heater Wired Controller

Suitable for 2HP heat pump water heater. Max.connected 16 units, single or all control as ON/OFF/Temp. setting/Query/Function check/Mode setting etc.

KJR-16B Heat Pump Water Heater Wired Controller

Suitable for new 3HP/5HP/10HP heat pump water heater. Max. connected 16 units , single or all control such as ON/OFF/Temp. setting/Query/Function cheak/Mode setting etc.

CCM06 Heat Pump Water Heater Central Control Cabinet

Touch screen control, Max. connecting 16 units, offer the whole heat pump water heater solution, including Temp. setting / External water pump control/External heat resource check and control.

MDV Central Control Monitor

CCM01 Indoor CCM

Small and exquisite, Max. 64 indoor units control; single or all query or control, such as ON/OFF/Mode setting /Temp. setting/Fan setting etc.

CCM02 Outdoor CCM

Max. 32 outdoor units connected query or control all MDV Pro and Inverter Smart outdoor units. While other outdoor units need add NIM06 to achieve electrical charge function.

CCM03 Indoor CCM

Max. 64 indoor units control. Single or all units query and control, such as ON/OFF/Mode setting/Temp. setting /Fan setting etc. Mode lock function, blue light background , LCD display screen.

MDV Controllers

KJR-01B(WD) Rooftop Package Unit Wired Controller

By wired method to control rooftop package unit as ON/OFF/Mode setting/Temp. setting /Timer setting.

KJR-10B Wired Controller

By wired method to control indoor unit as ON/OFF/Mode setting/Fan speed/Timer setting/Swing, etc.

KJR-12B Wired Controller (with FOLLOW ME)

The basic function is the same as KJR-10B.The difference is the FOLLOW ME function. It has a built-in temp. sensor which can detect the actual room temperature around you then to change the operating mode, just like the A/C is following you. If adopt this controller it is necessary to customize the PCB because the programme of chip need to change for achieving this function.

CCM04 Weekly Timer

Max. wired distance is 1200m. Setting the weekly schedule function as ON/OFF/Temp . setting /Fan speed etc.8 time segments selection per day.

Thermostat

KJR-14B Condensing Unit Thermostat

Suitable for condensing unit and rooftop package unit. Control function as ON/OFF/Mode setting /Temp. setting /Fan speed setting.

KJR-15B Floor-standing Fan Coil Unit Thermostat

Suitable for floor-standing fan coil unit. Control function as ON/OFF/Mode setting /Temp. setting /Fan speed setting.

Other Modules

(MDV)DWZL.D.1 Low Temperature Cooling Module

Installed in outdoor unit, it's suitable for most A/C, -5*low temp. cooling function is available.

t Module

After power restarted, the A/C will be recovered the primary state.

BMS Accessories

MDV-WLJKXT (V3.0) 3rd Network Central Control System Kit

3rd network monitor software, upgrade on 2nd network monitor software, more humanistic, and intelligent. Schedule management/Report output/Charge distribution function. Cooperated with indoor or outdoor central controller, it can check the operation states.

MDV-WLJKXT 2nd Network Central Control System

2nd network monitor software kit including CD / Softdog / RS485-232 converter/manual.

CCM07 LonWorks Gateway

Cooperated with 3rd network software, it can connect Midea A/C system to BMS system by LonWorks protocol.

CCM08 BMS CCM

BACNET protocol/LonWorks protocol/ETHERNET protocol all optional. Satisfy all kinds of BMS protocol demand. Max. connected 4 group A/C (each group including Max. 64 indoor units or 32 outdoor units).

NIM01 Network Interface Module

Suitable for indoor unit which PCB without network function.
It can connect indoor units to indoor central control monitor.

NIM02 Network Electric-charge Module

Adds digital display function on the base of NIM01. It can display electrical charge individually. But the corresponding indoor CCM need to be customized.

NIM05 Hotel Inserting Card Module

Cooperated with hotel inserting card system to control air-conditioner.

NIM06 Outdoor Units Electric-charge Module

Suitable for outdoor units(except MDV Pro and Inverter Smart series). Check and save the value of digital ammeter, and transfer the value to CCM02.

DTS634 Digital Ammeter

Suitable for electric-charge calculation system. With RS485 communication protocol, it will transfer the electric-charge value to MDV Pro and Inverter Smart series or NIM06.

Network Control System

- Can be used as Indoor CCM, control Max. indoor units 464 or outdoor units 432.
- It has BACNET port, LONWORKS port, ETHERNET control module to meet customers' demand.
- Can save data within one month.
- Can be connected to Midea-BMS via ETHERNET.

M-BMS

1.Network Control Package

(Including control software, 485-232 converter, softdog, service manual)

- Perfect system monitor/control function, It can dynamically monitor indoor/outdoor units operation condition.
- Powerful schedule management, group management, uniform management.
- Accurately electricity distribution function.
- Adopt Microsoft SQL Server database. It can output detailed data table which format can be chosen as Word or Excel.
- Detailed help document.

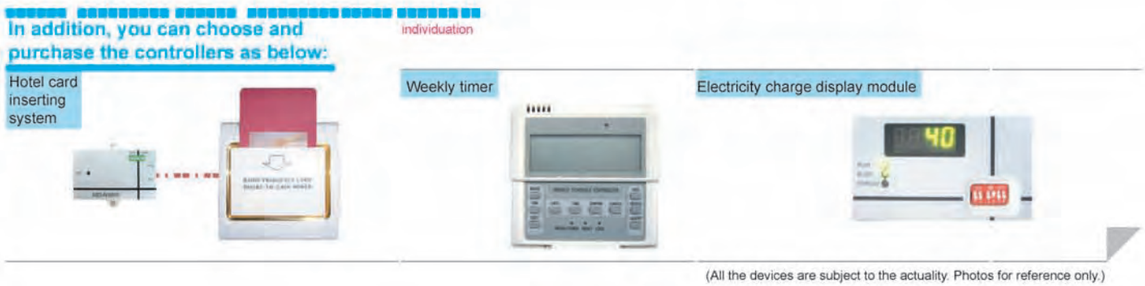
2.Indoor CCM

- There are 2 types for customers to choose: CCM01 and CCM03.
- CCM01 is small and exquisite. CCM03 has big screen with backlight, LCD display. Meanwhile it has mode lock function. Both of CCM01 and CCM03 have query or control one/all units, time setting, malfunction indication function. And unify the control ports, makes the operation interface more humanism.

3. Outdoor CCM

- It can query all the performance parameter of outdoor units expediently. Such as operation frequency of compressor, all kinds of control current, all kinds of load valve condition, operation condition and malfunction query function of outdoor unit.

NOTE
The control function will be different from different equipment. If you want obtain well-content control system, Please contact us in your project starting up state.


In addition, you can choose and purchase the controllers as below:
individuation
Hotel card inserting system
Weekly timer
Electricity charge display module

(All the devices are subject to the actuality. Photos for reference only.)

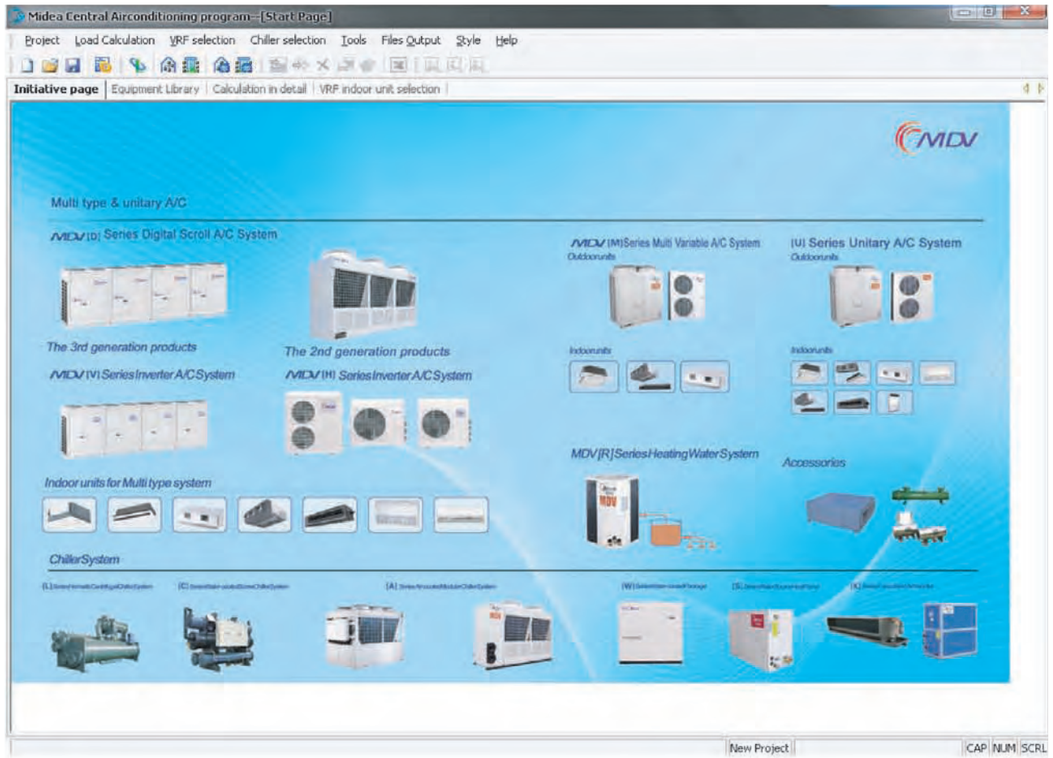
Selection Software

Windows Version

Main Features:

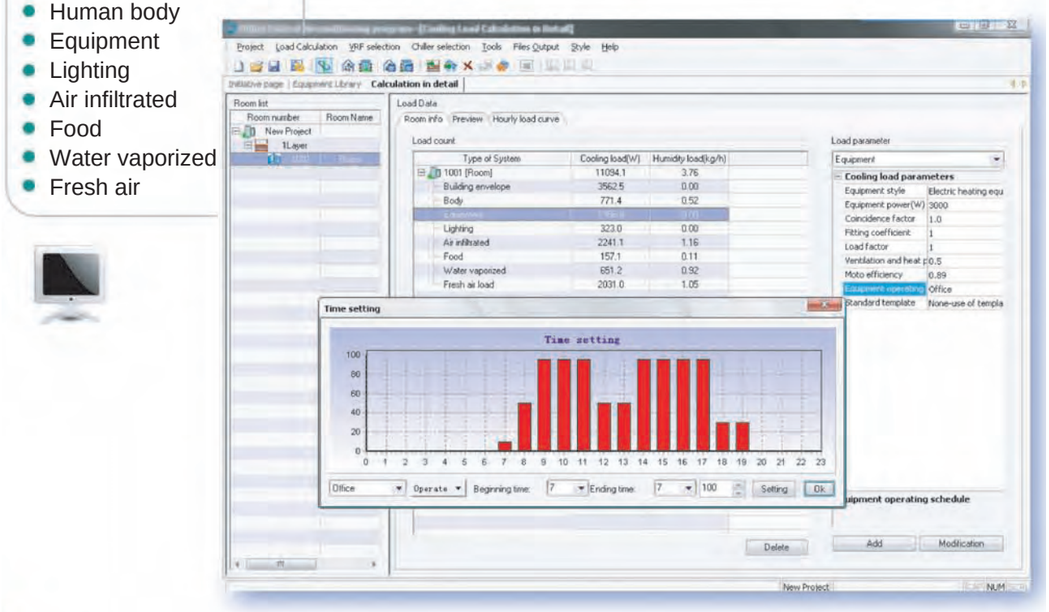
1. Cooling load calculation detailedly
2. VRF/Chiller system selection & configuration
3. Equipment table and quotation output
4. Nonstandard condition capacity inquire
5. Equipment library: Specification, picture and installation manual
6. Independent database tools. It's easy for user to maintenance
7. Detailed help document
8. Operation system: Windows 98/NT/2000/XP

This software can be customized according to different demand


Midea Central Airconditioning program--[Start Page]
Project Load Calculation VRF selection Chiller selection Tools Files Output Style Help
Initiative page Equipment Library Calculation in detail VRF indoor unit selection
MDV
Multi type & unitary A/C
MDV [D] Series Digital Scroll A/C System
MDV [M]Series Multi Variable A/C System
[U] Series Unitary A/C System
The 3rd generation products
The 2nd generation products
MDV [V] Series Inverter A/C System
MDV [H] Series Inverter A/C System
MDV [R] Series Heating Water System
Accessories
Indoor units for Multi type system
Chiller System
New Project
CAP NUM SCRL

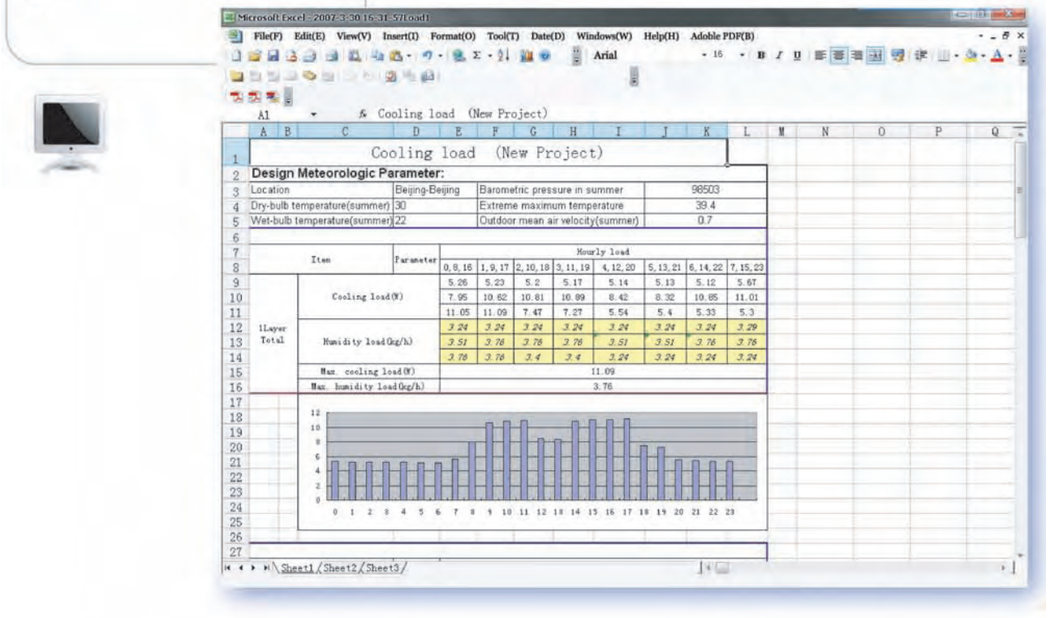
Detailed load calculation. Including:

- Building envelope
- Human body
- Equipment
- Lighting
- Air infiltrated
- Food
- Water vaporized
- Fresh air

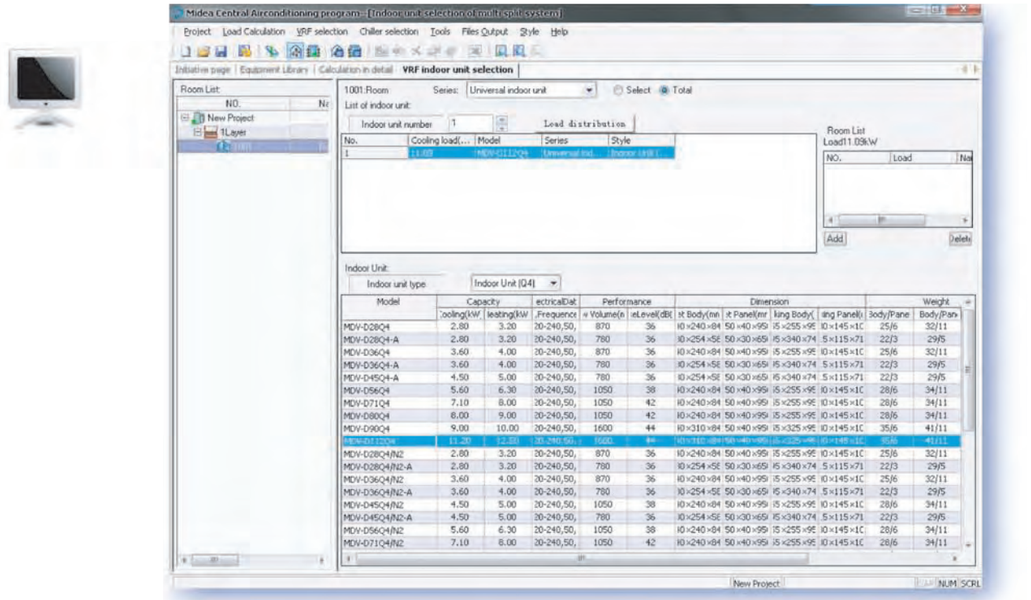


According to calculation result, It can be output in Excel. There are 3 types:

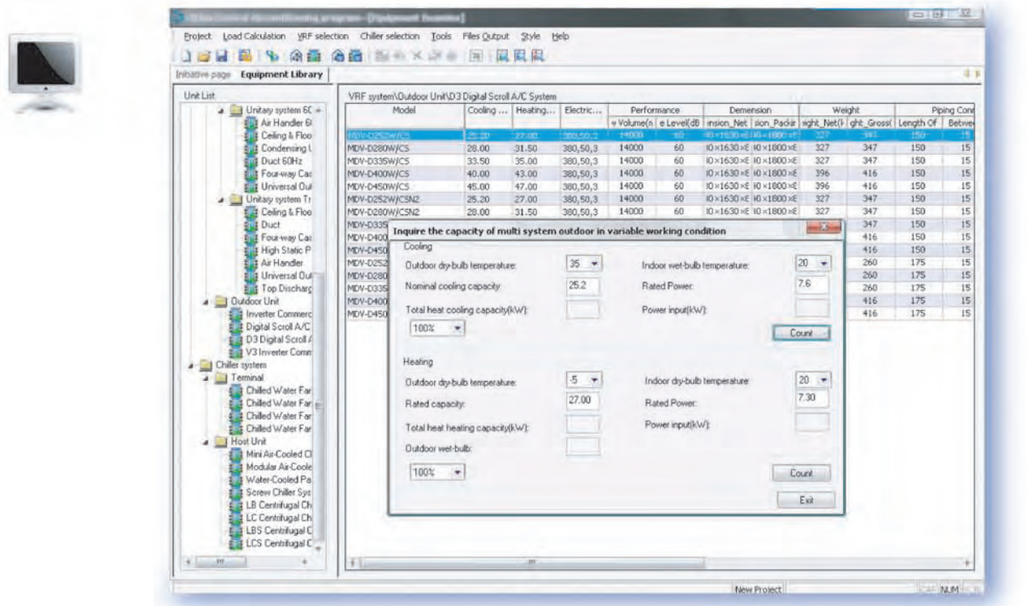
- Simple
- Detailed without Histogram
- Detailed with Histogram



According to calculation result, you can select corresponding equipment with VRF/Chiller system. You can also output corresponding equipment table and quotation.



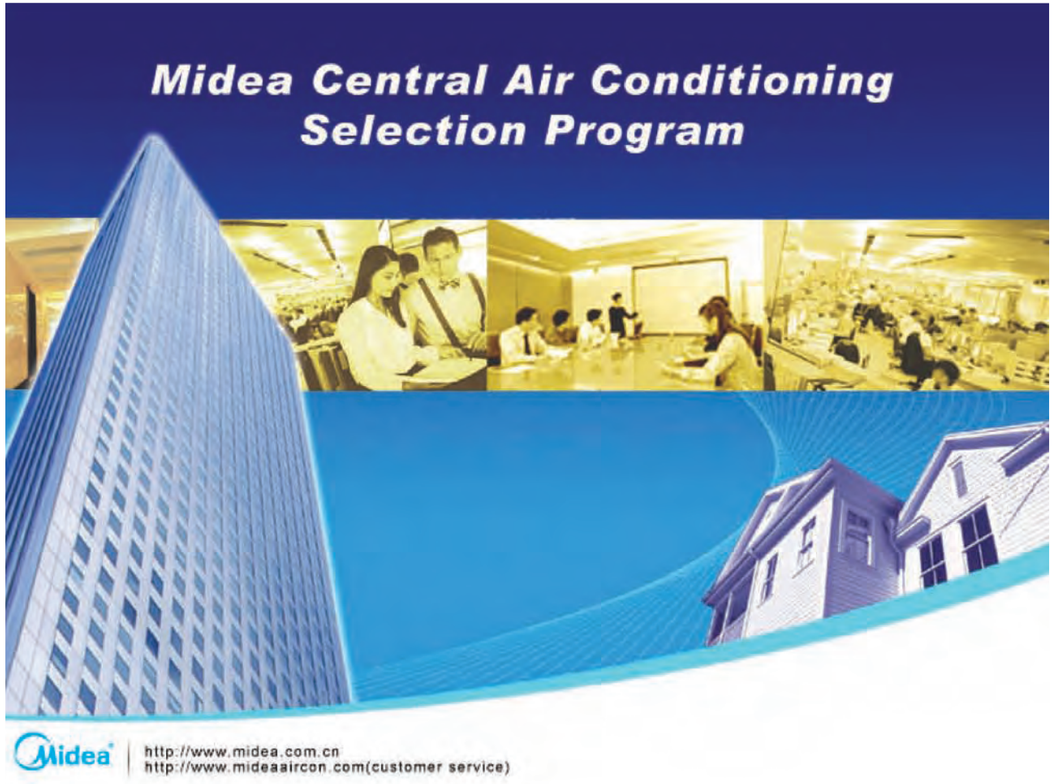
In the equipment library, you can inquire all the equipments' specification, picture, installation and nonstandard capacity.



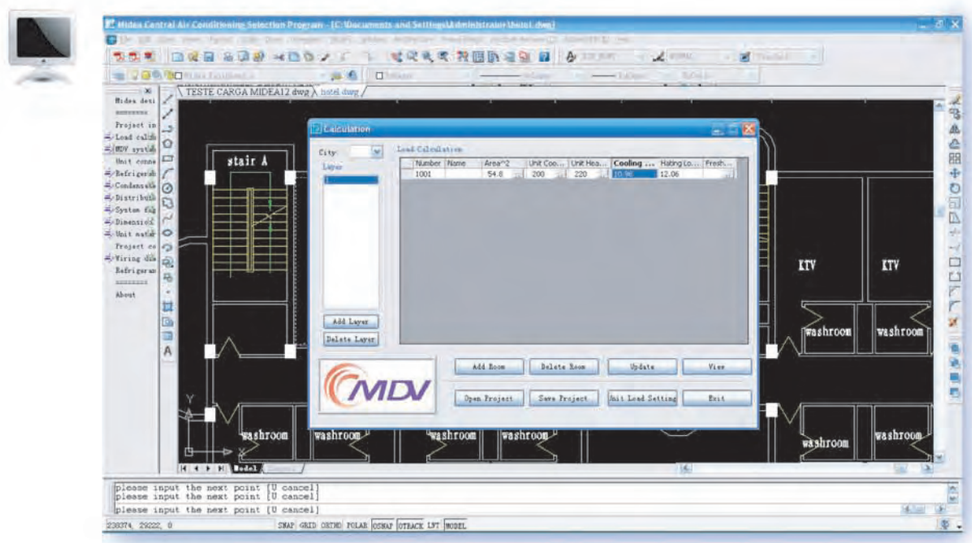
Auto CAD Version

Main Features:

1. Cooling/Heating load calculation
2. Indoor/Outdoor unit selection & configuration
3. Refrigerant pipe configuration
4. Condensate pipe configuration
5. Intelligent pipe/distributor calculation & dimenion
6. Automatic connection refrigerant/condensate pipe
7. Unit/distributor/pipe dimenion
8. Unit table and quotation list
9. Wiring diagram/installation figure output
10. Refrigerant additional calculation
11. Operation system: Windows 98/NT/2000/XP
12. Pre-installation: AutoCAD 2000/2002/2004/2005

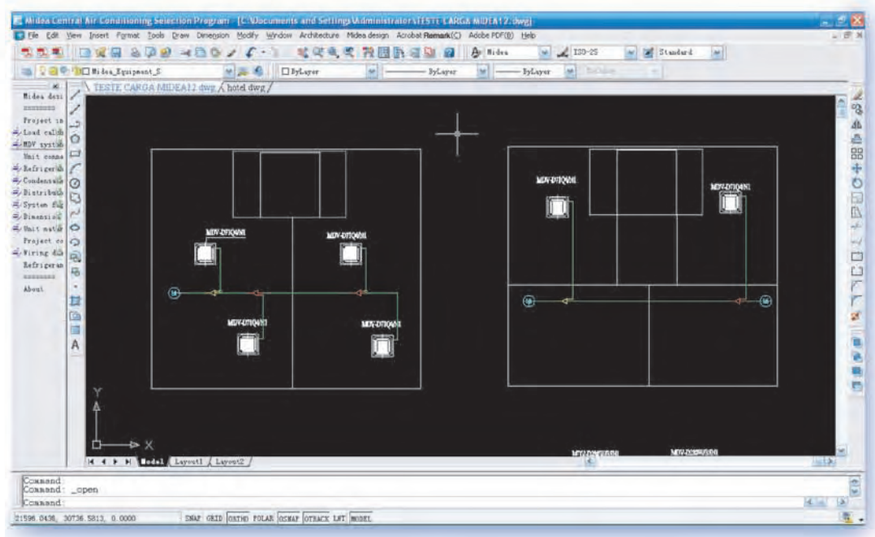


Load calculation by estimate

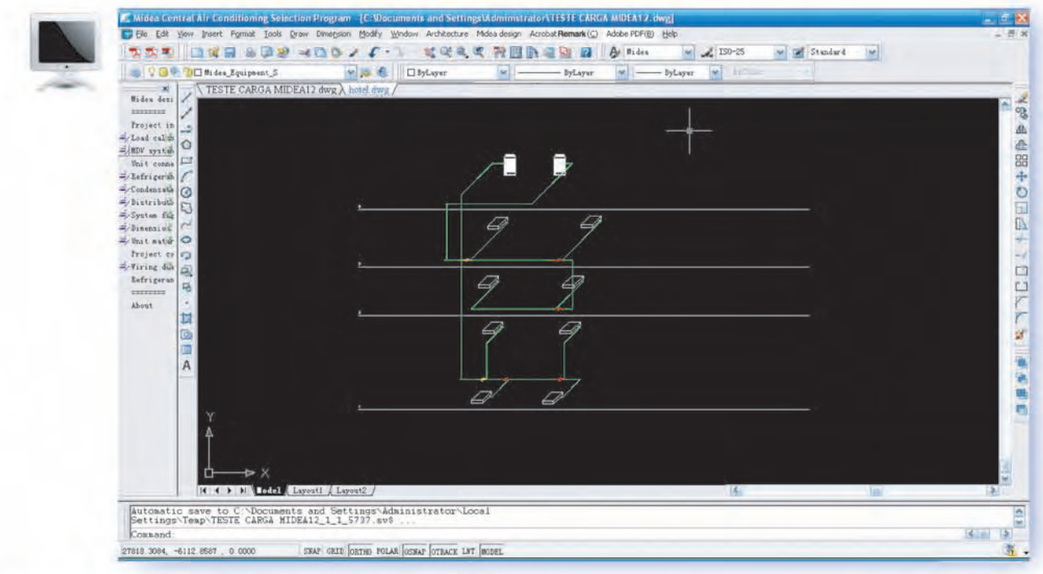


Horizontal/Vertical pipe collocation

Pipe auto connection
Pipe diameter/distributor calculation

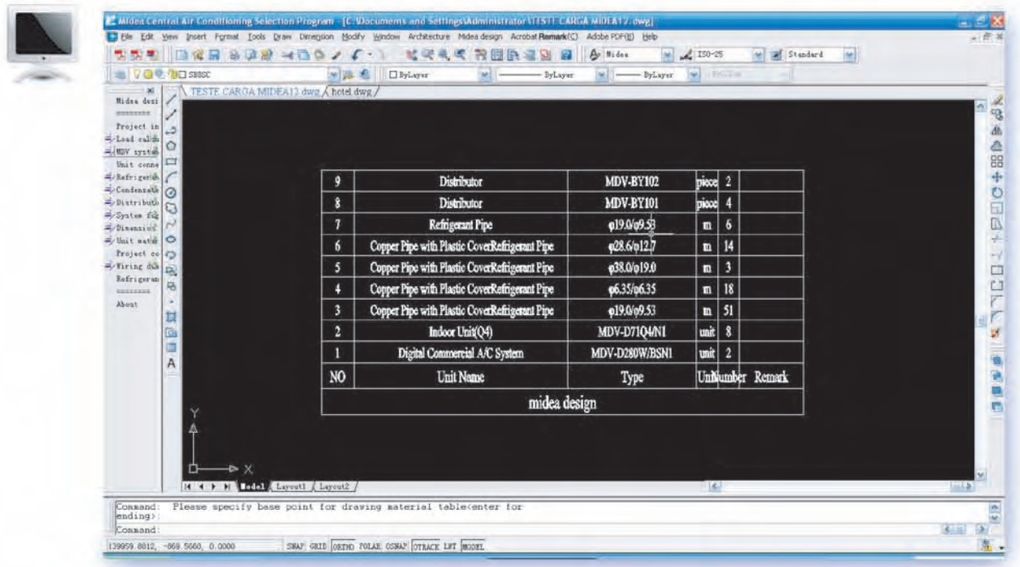


According to the plane design drawing, you can output system figure which is project side elevation.


Midea Central Air Conditioning Selection Program - [C:\Documents and Settings\Administrator\TESTE CARGA MIDEA12.dwg]
TESTE CARGA MIDEA12.dwg
hotel.dwg
Automatic save to C:\Documents and Settings\Administrator\Local Settings\Temp\TESTE CARGA MIDEA12_1_1_5737.sv$ ...
Command:

When you finish the design, you can output the project material table.

Including the equipments, distributors, copper pipes. You can also output this table in Excel.



NO	Unit Name	Type	Unit	number	Remark
midea design					
1	Digital Commercial A/C System	MDV-D280W/BSN1	unit	2	
2	Indoor Unit(Q4)	MDV-D71Q4/N1	unit	8	
3	Copper Pipe with Plastic CoverRefrigerant Pipe	φ19.0/φ9.53	m	51	
4	Copper Pipe with Plastic CoverRefrigerant Pipe	φ6.35/φ6.35	m	18	
5	Copper Pipe with Plastic CoverRefrigerant Pipe	φ38.0/φ19.0	m	3	
6	Copper Pipe with Plastic CoverRefrigerant Pipe	φ28.6/φ12.7	m	14	
7	Refrigerant Pipe	φ19.0/φ9.53	m	6	
8	Distributor	MDV-BY101	piece	4	
9	Distributor	MDV-BY102	piece	2	